Secondary Syphilis Misdiagnosed as Infectious Mononucleosis

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THE DIAGNOSIS of secondary syphilis is usually made on the basis of characteristic skin lesions, mucous patches or condylomata lata.[1,3,6] Recent clinical experience suggests that the manifestations of early secondary syphilis are becoming fewer and milder.[8] Numerous cases of secondary syphilis are now being seen with a few cutaneous manifestations or an atypical appearance. In the absence of characteristic skin lesions, early secondary syphilis may become manifest as a bizarre syndrome or it may mimic many systemic diseases. The following report is an example of a case of secondary syphilis which was misdiagnosed repeatedly over a period of four months as infectious mononucleosis.

Report of a Case

A 24-year-old single caucasian male postal employee was seen in the University of California Medical Clinic with a four-month history of headaches, malaise, anorexia, fatigue, sore throat and gradually increasing left cervical adenopathy. He had also noticed an intermittent low grade fever to 38.3° C (101° F) and a non-pruritic evanescent erythematous eruption over the trunk which had been present for two days but had begun to clear at the time of our examination. For two weeks he had noted a white elevated plaque on the posterior tongue. He had been seen by three physicians during the four-month period, each of whom independently had diagnosed infectious mononucleosis. No blood tests were made nor drugs given until the patient was seen in the University Hospital Emergency Room one week before he was seen in our clinics. At that time, blood count was within normal limits, the sedimentation rate was 20 mm in one hour (Westergren) and a heterophile study was negative. He was given nystatin mouthwash to treat the plaque on his posterior tongue and sent home with a diagnosis of infectious mononucleosis and monilial stomatitis. The patient was referred to our clinic for additional evaluation.

The patient's past history revealed that 16 months previously he had been treated with penicillin for gonococcal urethritis. Twelve months previously he had been treated as a gonorrhea contact. Result of a VDRL test was negative on both occasions. His last sexual contact was two months before his visit to our clinic. He denied having genital lesions.

On physical examination he was seen to be a thin young man who did not appear chronically ill; there was visible left cervical adenopathy. Enlarged lymph nodes included the suboccipital, postauricular, preauricular, submandibular, posterior cervical, and supraclavicular groups, in addition to the inguinals and epitrochlears. The left cervical nodes were more prominent than the right. All nodes were movable, discrete, non-tender and of a "rubbery" consistency. On examination of the skin a faint erythematous morbilliform eruption

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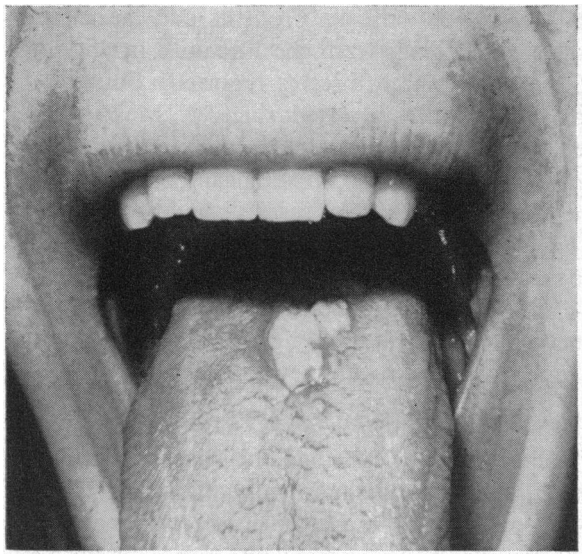

Figure 1.—Hypertrophic verrucous white lesion of tongue.

was noted on the trunk. Three 1-cm papulosquamous lesions were found on the frontal scalp, left forearm and chest. On the dorsal midline of the posterior half of the tongue was a hypertrophic verrucous white lesion (Figure 1). This was nontender and firm to palpation. Vessels of the pharynx and soft palate were engorged, and pharyngeal lymphoid tissue was somewhat hypertrophied. The tip of the spleen was felt two fingerbreadths below the left costal margin. There was no hepatomegaly. No lesions were found on the perineum or perianal area. The genitalia were also clear at the time of the first visit but three days later a 5-mm papule developed on the prepuce.

A blood cell count was within normal limits and the sedimentation rate was 12 mm in one hour (Westergren). No abnormalities were noted on urinalysis and a guaiac test of the stool was negative for occult blood. The serum icteric index was within normal range. Serum glutamic oxaloacetic transaminase (SGOT) was elevated at 48 Karmen units. The VDRL test was reactive at 1:64. Darkfield examination was positive for *Treponema pallidum* on the penile lesion, the tongue lesion and skin lesions on the left arm and chest.

The patient was treated with bicillin according to the schedule recommended by the U.S. Public Health Service. In addition, he was given 300,000 units of crystalline penicillin G in 2 percent aluminum monosterate (PAM) on the first visit to attempt to elicit a Herxheimer reaction. A typical Herxheimer reaction with chills and fever ensued (Table 1).

TABLE 1.—*Record of Herxheimer reaction in Present Case*

Time (hours after injection)	*Temperature (° F)**	*Symptoms (recorded by patient)*
4	99.4	Chills
4½	100.2	Chills
5	101.0	Chills
5½	102.2	Chills with "flash"
6	102.2	Chills
6½	103.2	No chills
7	101.8	Cold sweats
7½	101.2	Chills and sweats
8	100.0	No chills
8½	99.4	Sweats
9½	98.6	Sweats
17½	98.6	Normal

*Temperature and symptoms were recorded by patient and are in his own words.

Improvement was rapid and all lesions had cleared completely in two weeks.

Discussion

The clinical manifestations of secondary syphilis reflect the initial reaction of the various body tissues to a spirochetemia; no doubt all of the tissues of the body are invaded in the early stages of syphilis.[5,7] The skin manifestations are protean.[1] Mucous patches are common, but a hypertrophied, papillomatous condyloma on the posterior tongue, as described herein, is extremely rare.[2] Generalized lymphadenopathy occurs in 70 percent of cases and is one of the most characteristic aspects of the disease.[6] Hepatitis and palpable hepatomegaly with or without jaundice occur occasionally in secondary syphilis; splenomegaly is more common.[9] Liver involvement probably takes place much more frequently than is suspected clinically.

Significant constitutional symptoms occur in at least half the cases of secondary syphilis. Low grade fever may be intermittent or continuous. Headache, malaise, anorexia, weight loss and sore throat are all part of the clinical picture.[1,6] The erythrocyte sedimentation rate is elevated in most cases. The differential diagnosis of such nonspecific constitutional symptoms includes many diseases, infectious mononucleosis, tuberculosis and brucellosis among them. In a few cases pyrexia of unknown origin may be the only complaint. according to Stokes and coworkers,[6] the combined symptoms of sore throat and headache should suggest the possibility of secondary syphilis to the clinician. The sore throat and lymphadenopathy of syphilis must be kept in mind when mononucleosis is suspected.

In the case report presented, a patient with a

history of headache, fatigue, malaise, intermittent fever, anorexia, weight loss, sore throat and generalized adenopathy with splenomegaly was seen by several physicians and infectious mononucleosis was repeatedly diagnosed. A late-appearing syphilid on the tongue was diagnosed as thrush. The skin lesions were so slight as to be easily missed. Secondary syphilis had not been considered in the differential diagnosis; a VDRL test at the onset of illness would have saved the patient considerable time and expense and protected society from further spread of infection.

As suggested by Volan,[8] the physician may sometimes have extreme difficulty in the differential diagnosis of early syphilis with atypical manifestations. This case is an example of how the physician might have made an early diagnosis by not forgetting syphilis and by broadening his indications for serological examination. Such indications should include VDRL tests in all cases of infectious mononucleosis-like syndromes, hepatitis, pityriasis rosea or fever of unknown origin.

REFERENCES

1. King, A., and Nicol, C.: Venereal Disease, F. A. David Co., Philadelphia, 1964.
2. Kingsbury, J.: Dermochromes, Vol. 111, Rebman Co., New York, 1921.
3. Olansky, S.: The diagnosis of early syphilis, Med. Ann. DC, 35: 367-368, July 1966.
4. Olansky, S.: Syphilis-rediscovered, D M 3-30, May 1967.
5. Sherlock, S.: Diseases of the Liver and Biliary System, ed. 2, Blackwell Scientific Pubs., Oxford, 1958.
6. Stokes, J. H., Beerman, H., and Ingraham, N. R., Jr.: Modern Clinical Syphilology, ed. 3, W. B. Saunders Company, Philadelphia, 1944.
7. Thomas, E. W.: Syphilis: Its Course and Management, The Macmillan Company, New York, 1949.
8. Volan, H. H.: Diagnosis of early syphilis, N. Y. State J. Med., 66:2908-2912, 15 Nov. 1966.
9. Weiss, R. S., and Joseph, H. L.: Syphilis, Thomas Nelson and Sons, New York, 1951.
10. Willcox, R. R.: Textbook of Venereal Diseases and Treponematoses, ed. 2, Charles C Thomas, Publisher, Springfield, 1964.

Congenital Pulmonary Lymphangiectasis

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CONGENITAL PULMONARY LYMPHANGIECTASIS was first described by Virchow[1] in 1856. In a recent review of this subject, Fronstin and associates[2] collected 32 cases from the literature in addition to the case they themselves reported. Four more cases have been reported since.[3-6] Most of the reports of congenital pulmonary lymphangiectasis are to be found in the pathological literature. Until the present one, only 13 cases[2,13] had been studied from a radiological standpoint and at least three of the 13 were complicated by other anomalies.

The present report concerns the diagnosis of an uncomplicated case of congenital pulmonary lymphangiectasis in the newborn period.

Embryology and Pathological Physiology

Between the twelfth and the sixteenth week of fetal life the pulmonary lymphatic tissue is well developed. Later the channels become narrower and the surrounding connective tissue diminishes. Lawrence[14] expressed belief that congenital pulmonary lymphangiectasis stems from a continued growth of these tissues past the fetal stage. This theory appears to be better supported than that of Giammalvo,[15] who postulated that this anomaly results from a failure or delay in linkage of isolated lymphatic spaces.

Theros[6] correlated the pathological and radiological features of congenital pulmonary lymphangiectasis. Grossly, the lungs are bulky and inelastic. Large cystic spaces are apparent in the subpleural area. On sectioning, cystic lymphatic areas are also found peribronchially and in the interlobular septa. This results in a honeycomb appearance. Microscopically, an increase in fibrous tissue may be seen in addition to the dilated cystic lymphatic spaces. The surrounding alveoli are nearly collapsed and airless, although there may be bronchiolar ectasia.

Report of a Case

The patient was an 8-pound, full-term female infant who was delivered from a 39-year-old Caucasian who had had two previous uneventful pregnancies and healthy offspring. The current pregnancy was complicated by rupture of the membranes 24 hours before delivery. The fetal heart rate was noted to be irregular for four hours before the otherwise uncomplicated labor was terminated by application of outlet forceps. At birth the child did not cry or breathe vigorously and was deeply cyanotic. Respirations were 20 to 30 per minute. There was no chest retraction. Breath sounds, although diminished, were heard slightly better on the right. The heart rate was 80 to 100

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